

IN THE SPECIFICATION:

Paragraph beginning on Page 4, line 20 has been amended as follows:

A1  
In U. S. Patent Application serial no.                     09/965,764, filed                     09/28/2001 by R. W. Byren and A. F. Trafton and entitled **SYSTEM AND METHOD FOR EFFECTING HIGH-POWER BEAM CONTROL WITH ADAPTIVE OPTICS IN LOW POWER BEAM PATH**, (Atty. Docket No. PD-00W089) the teachings of which are incorporated by reference herein, Byren and Trafton describe several beam control architectures which use the wavefront reversal property of nonlinear phase conjugation to place a photonic deformable element in a low-power master oscillator beam path to perform the adaptive optic correction primarily for tactical HEL applications. Unfortunately, while effective when integrated local- and target-loop adaptive optics are used, this architecture does not adequately address the needs of current and proposed space based applications.

Paragraph beginning on Page 10, line 10 has been amended as follows:

A2  
Figure 2 shows an implementation of a high energy laser (HEL) beam control architecture implemented in accordance with the teachings of the above-referenced patent application of Byren *et al.* (Atty. Docket No. PD-00W089) (serial no. 09/965,764, filed 09/28/2001) the teachings of which have been incorporated herein by reference herein. As discussed more fully in the referenced patent, this system 200 uses the wavefront reversal properties of nonlinear optical phase conjugation to allow photonic spatial phase modulators (e.g., optical phased arrays) to be placed within low power portions of the beam path to effect an adaptive optic correction of target and local loop wavefront errors. In this scheme, aberrations within a master oscillator beam path and the non-common path errors within an Outcoupler and Aperture Sharing Element (Outcoupler/ASE) 240 are sampled with a Grating Rhomb 246 and sensed by a pair of Wavefront Sensors, one 248 for the HEL and one 249 for the Outcoupler/ASE.